An Experiment In Child Study

State of Maine
Educational
Department

This pamphlet will be sent free on application to W. W. Stetson, State Superintendent of Public Schools, Augusta, Maine.

AN EXPERIMENT IN CHILD STUDY.

A blank for the study of children was prepared by the Department and sent to the teachers and school officials early in the school year of 1902, with the following

COMMENTS AND SUGGESTIONS.

You are requested to make a careful study of each of your pupils in some of the particulars indicated below. Do not judge them by single facts. Strive to make your estimate as accurate as sympathetic study can render it. Having satisfied yourself of the justice of your decisions, place X's after the words that express your judgments.

It is hoped that a faithful compliance with this request will enable you to understand your pupils better and, from this knowledge, you will be prepared to strengthen their weak places and develop those powers that give promise of proficiency in some worthy work.

The motives that influence, the ideals that inspire and the history that reveals the child's inheritance of fibre, aptitudes and tendencies should be so carefully studied that the knowledge thus gained will materially modify methods of instruction and systems of management. To aid in deciding what and how much the child ought to do when the best opportunities are offered him and he is skillfully directed in doing his best, the outlines given below have been prepared. The study of the child should have for its object the increase of the teacher's usefulness to the pupil and should enable her to put him in the way to develop a vigorous body, a well balanced intellect, intelligent morals and a will that insures self-control. To do this she must know his history and possessions, physically, mentally and morally. Then she is prepared to help him to make good his deficiencies and train to a helpful force his gifts and, by this nurture, assist him to do in the best way the work Nature has determined he can do best.

It may be necessary to state that the teacher is not expected to make a study of the child in many of the particulars given

below that are matters of opinion. She is asked to report on all the items that are matters of fact. A child's ability to express his thought, or the thought of another in his own words, is a subject for study. The studies pursued by a child are matters of fact and require no investigation on the part of the teacher.

That each teacher may study the child from the side in which she is best fitted to pursue her investigations, a large number of topics are printed on the blanks.

The thought, feeling and action of a person are so closely related that you cannot study one of these forms of activity without learning much of the others. To know a child thoroughly as to his abilities, habits, manners or motives is to know something worth while as to each of the others. Each is a mirror in which the whole is more or less faithfully revealed.

The greatest benefit that can result from this work is that it must induce the teacher to become interested in her pupils as individuals. Who they are, what they are, whence they came, whither they are going, what they want to do, what they can do, the place they are to fill in the world and the training they need to fill this place, are among the questions that will press for answers. Generalizations are valuable, but, to be authoritative, they must be based on carefully considered details.

Know the child and you will come to know children. Love the child and you will grow to love children. Teachers should think less about their schools and more about the boy or girl. The mass will take care of itself if the individual is properly cared for. One of the great evils of the public school is found in the fact that the child has ceased to be an object of interest—he is lost in the mass; he no longer stands for anything; he has ceased to be an object of solicitude and the result is that he feels minimized, dwarfed, swamped. He loses his sense of individuality and responsibility. He cannot go alone because he has never gone or been considered alone. He waits to be led because he has always been in leading strings. He rushes when the multitude makes a break because he has always been held in place and put in motion by others. This study will help to get us back to the individual; to a proper recognition of the importance of personality.

To make these estimates of the children of the greatest value they must be based on a study of the child in the home, on the

street, in public assemblies, on the playground and in the schoolroom. He must be studied when he is under restraint and when he is free to follow his whims, fancies, impulses and the commands of his will. These studies should include his work and his play; when he acts consciously and when he is unconscious of what he does; when actuated by worthy and when by unworthy motives; when the act is spontaneous and when he plays a role; when he rules and when he is ruled; when he is under surveillance and when he is free to show all he is; when he is excited by passion or enthusiasm and when he is in his normal condition; when the saint holds the reins and when the sinner does the driving. The teacher must distinguish between the working off of an excess of nervous force and willfulness. This study will help her to discover when he goes wrong because of his talents and when because of his deficiencies; when he acts from fear or timidity and when from insolence. This knowledge will aid her in deciding what remedies are needed and when and how to apply them. When she has learned why a boy is refractory she is in the best position to help him to reform. When she knows why a boy is good she has the clearest and best ideas as to how to keep him interested in being the best within his power.

Fortunately the intelligent study of one child helps wonderfully in the study of all children. It is hardly less than astonishing how much of an expert one becomes in a short time if thought is put into the work. Things that were before unnoticed will stand out in clear relief; facts that have been before our eyes for years and not seen, will press themselves upon our attention. The child becomes an object of interest, a subject for study. He increases in importance. He has a new value. He becomes almost a fascination in our eagerness to know him.

But this work must be done with infinite patience, sympathy and love for the child studied. The old relation of master and subject must cease. The better relation of companions must take its place. When this work is well done, schoolrooms will no longer be places where children are herded, but will be centers of growth and blessing.

The thoughtful teacher will come to realize that it is the largest part of her work to build, not to repress. She will begin to appreciate the fact that she must discover power, stimulate action and direct them in right lines.

To help in this better way of helping the boys and girls, the outlines given below are placed in the hands of the teachers of the State and they are urged to use them for the purposes suggested in the preceding paragraphs.

THE RETURNS.

Replies have been received from one hundred seventy-one teachers giving the detailed data requested in the blank. Twenty-five of the teachers sending replies are men and one hundred forty-six are women.

The first series of questions aimed to ascertain prevailing interests of teachers in the subjects usually taught in the common schools. These results have the value and the weakness of personal reminiscences, giving, as they do, interests seen through the distance of years and translated into terms of later experience and larger life. "In their real work with children, teachers probably draw more upon their memories, for an interpretation of the acts of the children under their charge, than from any other source of professional equipment. Memory is sometimes treacherous and data sometimes colored by personal prejudices. Nevertheless, the teacher will always be limited more or less by the recollections of her own childhood."

Interest in school studies were sought along these lines:

1. Your favorite study when a pupil;
2. Your favorite study now;
3. The study you prefer to teach.

Answers to these questions have been collected and the results expressed in percentages in the following table:

I. FAVORITE STUDY WHEN A CHILD.

Studies.	Men—%	Women—%
1. Mathematics (general)	24	22
(a) Arithmetic	16	27
(b) Algebra	4	3
2. Language studies:		
(a) Reading and literature	4	10
(b) Grammar and composition	4	12
(c) Spelling	0	2
3. History	24	14
4. Geography	8	10
5. Sciences and Nature study	0	

II. FAVORITE STUDY NOW.

	Men—%	Women—%
1. Mathematics (general)	0	30
(a) Arithmetic	20	8
(b) Algebra	8	1
2. Language studies:		
(a) Reading and literature	12	15
(b) Grammar and composition	4	19
(c) Spelling	0	0
3. History	12	9
4. Geography	0	1
5. Sciences and Nature study	16	9
6. Music	0	5
7. Foreign languages	0	3
8. Book-keeping	8	3

III. TEACHING PREFERENCE.

1. Mathematics (general)	28	25
(a) Arithmetic	24	19
2. Language studies:		
(a) Reading and literature	8	10
(b) Grammar and composition	4	7
3. History	4	12
4. Geography	24	6
5. Sciences and Nature study	4	4
6. Music and drawing	2	4

There were scattering subjects in each of the three tables, but the above tabulation gives in the main the reminiscent interests in school studies of the one hundred and seventy-one teachers. One is struck at the outset by the high regard in which the study of mathematics is held and the returns are not in accord with similar studies made by Professor Smith in Michigan, Professor Chabot in France and Miss Kate Stevens in England. A part of the mathematical preference is doubtless due to the emphasis placed on the study throughout the elementary school course.

The language studies—reading, literature, spelling, composition and grammar—are mentioned more often by the women teachers, in all three of the tables. Spelling is given in the first table only and by women.

History has a large place in the interests of these teachers and was more often a favorite study with the men than the women, but the women exceed the men in teaching preference.

Geography occupies a relatively insignificant place in the first and second tables, but an unusually large number of men (24 per cent of the whole number) say they like best to teach it.

The sciences throughout occupy a relatively subordinate place and music and drawing, because of their recent introduction into the common school course of study, are mentioned in the second and third tables only.

The same child study outline called for certain data concerning the children—nationality, physique, carriage of the body, intellectual capacities, emotional tendencies, will power, strength of memory, acuteness of reasoning, vividness of imagination, keenness of observation, school manners, morals and habits. The 171 teachers sent returns from 4,128 children, 2,107 boys and 2,021 girls. The data are given in the following tables and, excepting nationality, the returns are expressed in percentages:

IV. NATIONALITY OF THE CHILDREN STUDIED.

Parentage.	Boys.	Girls.	Total.
1. American	1,324	1,308	2,632
2. French	313	283	596
3. Irish	158	127	285
4. English	41	39	80
5. Swedish	39	9	48
6. Russian	19	28	47
7. German	3	12	15
8. Italian	9	4	13
9. Other nationalities	15	18	33

V. PHYSIQUE.

Characteristic.	Boys—%	Girls—%
1. Strong and sturdy	86	76
2. Weak and puny	11	10
3. Deformed	8	3
4. With defective vision	5	6
5. With defective hearing	1	9

With respect to physique, our boys and girls make a very satisfactory showing. More careful tests for defective vision and hearing would doubtless produce more alarming statements. While it is true that children in the rural districts are less myopic than in city districts, still it is probably true that there is much more myopia in our rural schools than these returns would indicate. More careful studies, with the Snellen test-types, should supplement this preliminary study.

VI. CARRIAGE OF THE BODY.

Manner.	Boys—%	Girls—%
1. Erect and graceful	71	85
2. Awkward and shambling	20	11

The girls, it would seem, have better control of their bodies than the boys. It should be borne in mind, however, that the

girl acquires poise and grace in bodily movements earlier than the boys.

VII. INTELLECTUAL CAPACITIES.

Grade.	Boys—%	Girls—%
1. Strong, active and bright	73	54
2. Slow and weak	16	12
3. Very weak	2	1

These returns would indicate that mediocre intellectual capacity falls most often to the lot of the girls, a much larger percentage of the boys being reported as of a strong vigorous type of intellect.

VIII. EMOTIONAL TENDENCIES.

Characteristics.	Boys—%	Girls—%
1. Well balanced and even	34	32
2. Sensitive	21	25
3. Impulsive	12	9
4. Irritable and nervous	14	9
5. Uneven and uncertain	10	11

The fourth item in the above table does not agree with statistics in general. Girls are universally more irritable and nervous than boys and the various school neuroses, so much more common among girls than among boys, are important factors in emotional disturbances.

IX. WILL POWER.

Characteristics.	Boys—%	Girls—%
1. Strong, resolute and controlled	78	74
2. Weak	6	7

The girls make a better showing in will power than is usually supposed and the weak-willed child does not appear as an important factor in these returns.

X. INDIVIDUALITY AND CHARACTER.

Traits.		Boys—%	Girls—%
1. Concentration	Good	8	8
	Fair	21	19
	Poor	7	4
2. Application	Good	11	14
	Fair	14	18
	Poor	7	3
3. Endurance	Good	8	6
	Fair	18	14
	Poor	2	2
4. Self-reliance	Good	14	19
	Fair	17	17
	Poor	6	6
5. Confidence	Good	12	13
	Fair	24	15
	Poor	4	3
6. Perseverance	Good	12	9
	Fair	15	14
	Poor	6	5
Muscular Control	Good	15	14
	Fair	13	16
	Poor	4	3

These general qualities have value chiefly to the teacher in immediate charge of the child observed. Muscular control, for example, is one of the necessary qualities in will training and its absence suggests to the teacher the need of specific training.

XI. STRENGTH OF MEMORY.

Degrees.	Boys—%	Girls—%
1. Retentive and ready	60	59
2. Verbal	15	12
3. Weak	10	8
4. Very weak	3	2

Numerous studies have been made on the memory of school children by Shaw, Hawkins, Kirkpatrick and others and without an exception the memory power of the girls surpassed that of the boys. More definite results might have been obtained by age tabulations. Generally the memory continues to increase in power until the thirteenth or fourteenth year.

XII. ACUTENESS OF REASONING.

Degrees.	Boys—%	Girls—%
1. Strong	43	32
2. Normal	38	26
3. Weak	8	16
4. Very weak	2	3

These results agree in the main with studies made by Monroe, Barnes and Hancock on the reasoning power of school children. The reasoning power of the boy seems more acute and develops earlier than that of the girl.

XIII. VIVIDNESS OF IMAGINATION.

Degrees.	Boys—%	Girls—%
1. Vivid	14	17
2. Normal	27	38
3. Weak	20	11

Here again the superior visualizing power of girls is in accord with studies before made on the vividness of imagination.

XIV. OBSERVATION.

	Boys—%	Girls—%
Number who see objects and their parts quickly,	20	24
Number who contrast intelligently	13	15
Number who compare intelligently	13	13
Number who see beauty in an object	22	25
Number who see beauty in a thought	11	13
Number who see beauty in a sentence	11	14
Number who see beauty in a picture	29	31
Number who see the ideas in a picture	16	19
Number who see the pictures in a poem	16	18

The perceptive power of the girls seems slightly superior to that of the boys and they seem more advanced than the boys in the development of the æsthetic sense. There is promise in the fact that so many of both sexes see beauty in a picture. Clearly the capacity to enjoy beauty is in the ascendency in our schools.

XV. MANNERS.

	Boys—%	Girls—%
Courteous	40	46
Refined	18	26
Gentle	23	32
Reserved	11	13
Rude	13	5
Clownish, rowdyish and foppish	7	3

The boys make a better showing than might have been expected when it is recalled that the graces of manners and deportment are more essentially instinctive and inherent in girls than with boys.

XVI. MORALS AND HABITS.

	Boys—%	Girls—%
Truthful	53	59
Untruthful	9	8
Trustworthy	35	40
Dishonest	6	5
Obedient	48	63
Disobedient	6	4
Vicious, malicious and depraved	3	1
Punctual	40	42
Attentive	36	40
Inattentive	10	10
Lazy	9	5
Willful	8	6

While the boys make a less satisfactory showing than the girls, the moral feelings of boys develop less rapidly than the same feelings among girls. So large a proportion of the teachers who made these observations were women, it seems not unlikely that the moral standards were essentially feminine, in which case the boys are placed at a disadvantage.

XVII. MISCELLANEOUS.

	Boys—%	Girls—%
Energetic	24	27
Timid	6	10
Courageous	20	16
Generous	24	26
Selfish	10	11
Hopeful	17	13

	Boys—%	Girls—%
Despondent	8	3
Peaceable	25	22
Quarrelsome	9	5
Easily discouraged	9	7
Vain	3	4
Intense in hatred	2	2
Imitative	15	12
Original	8	8
Can make things with tools	13	8
Like muscular exercise	29	21
Much affected by what they term beaut.ful	8	14

XVIII. MOTIVES THAT INFLUENCE.

Honor	20	26
Love	24	29
Praise	26	26
Rewards	19	21
Desire to excel	24	26
Fear	9	4

XIX. HOW CONTROLLED.

Muscle	11	5
Will	18	19
Emotions	12	13
Self-control	13	19

XX. ARTICULATION AND PRONUNCIATION.

Pleasing	25	34
Accurate	14	31
Distinct	32	33
Inaccurate	13	12
Indistinct	11	7
Mumbling	6	5
Drawling	6	2

XXI. LANGUAGE WRITTEN AND SPOKEN.

Characteristic	11	11
Felicitous	5	6
Clear	21	25
Concise	5	7
Indefinite	4	4
Incorrect	12	10

XXII. PERCENTAGE OF STUDENTS PURSUING VARIOUS STUDIES.

Reading	90	90
Spelling	81	80
Writing	84	84
Drawing	52	47
Arithmetic	78	77
Language	60	59
Music	35	39
Geography	51	49
History	27	28
Nature studies	42	43

It will be noted that reading and the language arts occupy the commanding places in the schools reported in these statistics. It is encouraging to note the attention given to drawing and music.

XXIII. FAVORITE STUDIES.

	Boys—%	Girls—%
Reading	27	30
Spelling	12	13
Writing	14	16
Drawing	12	12
Arithmetic	27	23
Language	10	11
Music	9	12
Geography	12	12
History	11	9

These preferences, it will be noted, represent the reactions of the teachers rather than of the children. Still, it is important to know what studies the teachers think the favorites with children. Professor Lefevre asked 37,000 French school children to write the studies they liked best and the studies they liked least (See Revue Pedagogique, Jan., 1900, Vol. 36, pp 4-26). He found the preferences of the boys as follows: (1) History; (2) Arithmetic; (3) Drawing; (4) Reading; (5) Spelling; (6) Geography; (7) Writing; (8) Grammar; (9) Science. The preference of the girls were as follows: (1) History; (2) Arithmetic; (3) Reading; (4) Geography; (5) Spelling; (6) Drawing; (7) Writing; (8) Grammar; (9) Science.

Miss Kate Stevens, the principal of a large school for girls in the city of London, asked English girls to state their favorite lesson, their hardest lesson and their easiest lesson. (See Child Life, July, 1899, Vol. 1, pp 160-162). She found that the favorite lessons, as stated by the girls themselves, were in the following order: (1) Reading; (2) Geography; (3) Arithmetic; (4) Writing; (5) Needlework; (6) Grammar; (7) Music; (8) Scriptures.

XXIV. NO. WHO EXCEL IN DIFFERENT STUDIES.

	Boys—%	Girls—%
Reading	18	24
Spelling	24	29
Writing	17	20
Drawing	10	9
Arithmetic	21	20
Language	11	12
Music	6	8
Geography	12	11
History	9	9
Nature studies	6	6

Miss Stevens found that the lessons reported as easiest by London school girls were as follows: (1) Reading; (2) Writing; (3) Needlework; (4) Arithmetic; (5) Music; (6) Geography.

XXV. NO. WHO ARE DEFICIENT IN DIFFERENT STUDIES.

	Boys—%	Girls—%
Reading	18	15
Spelling	18	14
Writing	16	11
Drawing	11	10
Arithmetic	14	7
Language	10	9
Music	11	7
Geography	8	7
History	5	5
Nature studies	4	5

Professor Lefevre found that the school studies liked least by French children were as follows: (1) Arithmetic; (2) Geography; (3) Drawing; (4) History; (5) Grammar; (6) Spelling.

Miss Stevens found that the most difficult studies for London girls, as reported by the girls themselves, were: (1) Geography; (2) Arithmetic; (3) Grammar; (4) Needlework; (5) Spelling; (6) Reading; (7) Writing; (8) Music.

Dr. Ferdinand Kemsies, who tested Berlin school children with the ergometer, found that the most fatigue producing studies were as follows: (1) Gymnastics; (2)Arithmetic; (3) Foreign language; (4) Scriptures; (5) Grammar; (6) Science; (7) Geography; (8) History; (9) Music; (10) Drawing, (See Kemsies' Arbeitshygiene der Schule auf Grund von Ermuedungsmessungen. Berlin, 1898, pp 64).

XXVI. NUMBER WHO READ OUTSIDE OF TEXT-BOOKS.

	Boys—%	Girls—%
Excessively	5	7
Largely	7	8
Reasonable amount	23	26
Little	10	12
None	14	11

Professor Lefevre found that 62 per cent of the boys and 70 per cent of the girls tested by him were regular readers of books other than text-books.

Professor Bullock, who made observations on the use made by school children in Colorado of the public and school libraries at North Denver, Boulder and Colorado Springs, found that in

Denver 92 per cent of the third grade children use the school library and none the public libraries. In the fourth grade, 5 per cent use the public libraries and that percentage gradually increases to 60 per cent in the twelfth grade, while the percentage of those using the school library decreases to 12 per cent in the twelfth grade (See his paper on "Observations on children's readings" in the Proceedings of National Educational Association for 1897, pp. 1015-1021).

XXVII. CHARACTER OF BOOKS READ.

	Boys—%	Girls—%
Standard	11	12
Helpful	19	25
Trashy and vicious	3	3

Professor Bullock also reports that the number of trashy and vicious books read by Colorado children is comparatively small. He found that the standard and healthful books were furnished (1) by the school library and (2) by the public library and that the trashy and vicious books were supplied (1) by Sunday School libraries and (2) by home libraries.

XXVIII. ATTITUDE TOWARD SCHOOL AND WORK.

	Boys—%	Girls—%
Attached	32	41
Interested	47	55
Indifferent	15	9
Hostile	3	2

XXIX. SCHOLARSHIP.

Excellent	19	28
Good	35	37
Fair	19	18
Poor	8	5
Very poor	3	2

It would be interesting to know the divers standards of scholarship by which these children were tested. It is probable that their power to explain events by referring them to their causes, to discern the relations and qualities of objects and affirm these relations in facts, or to see in particular facts the general facts that they include was not made the basis of these estimates. Measured by such standards—the ability to think—as Monroe, Hancock and Mrs. Barnes have shown—boys very generally surpass girls.

On the other hand, the ability to retain and recall lessons, to remember facts and recite the same with readiness—the memory power—as Shaw and Hawkins have shown—girls uniformly surpass boys.

XXX. PARTICULAR TALENT.

	Boys—%	Girls—%
Special talent for some one thing	14	14
Special talent for no one thing	10	11
Aptitude for several things	17	22

XXXI. DOMINANT INTERESTS.

Nature	19	20
Books	13	14
School work	13	12
Outside work	5	4
Recreation	9	6

Only six of the teachers reporting mentioned the favorite books and songs of the children and but three the portions of arithmetic found most difficult and least difficult. These topics are important and it is to be regretted that sufficient data were not furnished for tabulation. The information furnished concerning the use made of memorial holidays was too meagre and indefinite for collation.

On the whole, the returns suggest some interesting facts and, for comparative purposes, at least, they have unmistakable educational value. They throw light also on certain defects which the teachers themselves must remedy.

GENERAL COMMENTS AND QUERIES.

The percentages, in some cases, may not be understood by persons who are not accustomed to these studies. It will be noticed that under certain general heads the aggregate of the percentages exceeds 100, and that in others the sum is less than 100. In certain instances the same pupil is included in more than one of the sub-titles and, in other cases, some pupils are not estimated under any of the sub-titles used.

It is of interest to note that so many different nationalities are so largely represented in our State. Most people, who think of the matter at all, have the impression that our foreign population is limited to immigrants from two European nations. That we have so many Germans, Russians and Swedes shows that Maine and its resources are beginning to appeal to the people of several of the nations of Europe.

The physical conditions which so largely mold our people are responsible for the fine showing which the study reveals of the physiques of our boys and girls, but there seems to be no good reason for the boys leading the girls to the extent of 10 per cent in this particular.

The figures make clear the fact, already known to our educators, that while we have trained the hands and heads of our children, we have not thought it necessary to give nurture to their emotions. The per cent, under this item, exhibits a condition that calls for the thoughtful attention of teachers. We shall some day learn, what we already ought to know, that the feelings need culture quite as much as the intellect.

The figures on application and self-reliance are not encouraging. They show that too much has been done for the child and that he has been required to do too little for and by himself.

It is apparent that we do not furnish the child with reasonable opportunities to develop his memory and the result is that many of our children are deficient in this faculty. On the other hand quite as large a per cent of our pupils show ability to reason as should be expected.

The returns in relation to the imagination furnish a severe criticism on the work of the common schools. This faculty is most active in childhood. It is a well known law of pedagogy that every power of the mind should receive its training during the time of its greatest natural activity. That we need to give careful study to this matter must be clear to any one who considers these figures thoughtfully.

The record as to the manners of the children shows that there is ample opportunity for improvement and it is hoped that this testimony will result in greater attention to this subject.

Under the head of morals, habits and virtues, the returns indicate that there is still much work for the teacher to do. It is clear that if she is to render the service most needed by the children she must be a thoughful student and a sympathetic companion.

Perhaps the most interesting item in this long list is the statement that, in the judgment of the teachers, 73 per cent of the boys and 54 per cent of the girls are possessed of more than average intellectual ability. Other parts of the record are clear upon the point that, in the matter of effort made and results

achieved, the girls lead the boys in percentages too large to be pleasant reading. There must be some explanation for these figures. Are girls more faithful and industrious than boys, or have they a stronger sense of the necessity for being studious, or are they capable of doing more and better work during the childhood period, or are the boys indifferent because of associations and the unwholesome spirit existing in so many communities in relation to the value of the training given in school for those who are to engage in certain occupations?

These statistics bring the welcome assurance that art has an influential place in our schools. The talks given at teachers' meetings and the work done by the teachers in interpreting reproductions of master pieces have borne fruit beyond the fondest anticipations of those who have sought to interest our people in this great branch of study. It is doubted if any other record, equally encouraging, can be found in any other department of school work.

It is gratifying to be assured that the work in Nature study has produced such marked results in developing the powers of observation of the children.

There is reason for being hopeful for our boys and girls when so large a per cent of them are credited with being energetic. It is possible that if a larger number were interested in physical exercises the list would be still farther increased.

It is to be regretted that nine per cent of the boys and four per cent of the girls have to be controlled by an appeal to their fears.

Those who are interested in the future of these children would be glad if more than twenty per cent of the boys and twenty-five per cent of the girls excel in reading and were worthy of being ranked as clear in their use of English.

Teachers and parents would do well to reduce, if possible, the large percentage of both boys and girls who are classed as indifferent in their attitude toward the school and school work.

It must be surprising to most persons to learn that fourteen per cent of both boys and girls have special talent for some one thing and that nineteen per cent of the boys and twenty-two per cent of the girls show a talent for several lines of work or study.

When each school is provided with a library, then we shall have more than thirteen per cent of the boys and fourteen per cent of the girls who exhibit a marked interest in books.

No one can study these figures without noticing that the girls lead the boys in desirable qualities and that the boys more largely rank the girls in particulars which reflect discredit upon school children. The almost unanimous testimony of teachers on these items makes pertinent the following queries:

First: Do the figures fairly represent the facts?

Second: Are boys less interested in school work than girls because they are in so few instances taught by men?

Third: Do women judge boys fairly?

Fourth: Do boys develop more slowly than girls and are they less willing to work?

Fifth: Are our courses of study better adapted to the needs of girls than to the necessities of boys?

Sixth: Are girls more industrious than boys because they are told so frequently they are not as brainy as boys?

Seventh: Have athletics had anything to do with lessening the interest of boys in school work?

Eighth: Is the instruction more attractive to girls than to boys?

Ninth: Should not parents, school officials and teachers make a careful study of these figures for the purpose of determining what changes are needed in school administration, teaching force, subjects of study and methods of instruction?